## Gluten-Free Diet and Drug Instruction

Updated June 2019

The gluten-free (GF) diet can provide adequate nutrition while eliminating wheat, rye and barley from the diet as long as GF grains with high nutritional value are used and the diet includes a variety of nutritious foods. Gluten is a generic term referring to storage proteins in grains. The fractions of gluten protein in wheat which are problematic in people with gluten-related disorders are gliadin and glutenin. There are equivalent toxic protein fractions in barley and rye. Research on oats indicates small quantities ( $1 / 2$ cup dry) are safe for most people with celiac disease. Consult with your dietitian or physician before consuming. Oats used should be clean and uncontaminated, and certified gluten-free.

Gluten damages the intestine of individuals with celiac disease and dermatitis herpetiformis (a skin manifestation of celiac disease). It is not thought to cause damage to the intestine of those with non-celiac gluten sensitivity, but it still has an adverse effect on the health of people with this condition.

When all sources of gluten are removed from the diet of individuals with celiac disease, the intestine is able to regenerate and normal function is usually restored. Similarly, a gluten-free diet leads to resolution of symptoms in individuals with nonceliac gluten sensitivity.

## Gluten in many foods

The gluten from these grains may be present in foods either as a basic ingredient (that is, listed as wheat, rye or barley), or added as a derivative when a food is processed or prepared. READING LABELS CAREFULLY IS VERY IMPORTANT!

## How to Determine if a Product is Gluten-Free

## 1. Certified

A product which carries a 3rd party certification such as that of GIG's GlutenFree Certification Organization (GFCO) is considered safe for gluten-free consumers. (See GFCO logo below.)

Questions to ask your doctor:

Is there any testing
I should have
done to assess
for nutritional
deficiencies?
Could I have associated food intolerances?

Should I take nutritional supplements?

How often should I follow-up with the doctor? With the dietitian?

What other concerns should I have?

## 2. Labeled

If an FDA-regulated product is labeled "gluten-free" it is considered safe to consume. Manufacturers choosing to label products "gluten-free" are required to comply with the FDA regulation defining use of the term. The rule also applies to the terms "no gluten," "free of gluten," and "without gluten."

## FDA and USDA

The FDA gluten-free labeling regulation is a part of FALCPA (the "Food Allergen Labeling and Consumer Protection Act"). FALCPA applies to FDA-regulated products only. The FDA regulates the vast majority of packaged foods. The USDA regulates meats, poultry, egg products and mixed products which generally contain more than $3 \%$ raw or $2 \%$ cooked meat (e.g. some soups and frozen entrees). Products regulated by the USDA are not required to comply with FALCPA, but an estimated $80-90 \%$ do so voluntarily.

## 3. Ingredients

For products which are neither certified nor labeled "gluten-free", it is essential to read the ingredient list. If any of the following are present on the ingredient list, the product is not gluten-free: wheat (including all types of wheat such as spelt), rye, barley, oats (unless certified gluten-free), malt, brewer's yeast.

- A product that is labeled gluten-free may include the term "wheat" in the ingredient list (e.g. wheat starch) or in a separate "Contains wheat" statement, but the label must also include the following statement: "The wheat has been processed to allow this food to meet the Food and Drug Administration (FDA) requirements for gluten-free foods."
- Remember: wheat-free is not the same as gluten-free. A product may be wheat-free but still contain rye or barley.


#### Abstract

More information regarding looking for wheat on ingredient labels FALCPA (the "Food Allergen Labeling and Consumer Protection Act") FALCPA requires that the top 8 allergens be clearly identified, wheat being one of them. Derivatives of wheat such as "modified food starch" must clearly indicate that "wheat" is the source when this is the case. "Wheat" can either appear in parentheses in the ingredient list or in a separate "Contains" statement below or next to the ingredient list. As stated above, even though USDA products are not required to comply with FALCPA, it's estimated that 80 to $90 \%$ do so voluntarily. If there is any doubt about whether a product is complying with FALCPA labeling, the following ingredients may be derived from wheat and need to be avoided or investigated: starch, food starch, modified food starch, dextrin.


Foods included in the "Foods to Avoid" section of the chart below should be avoided if safety cannot be established. At times, you may find foods listed here that are gluten-free. The majority of the time this will not be the case. Think of these foods and ingredients as potentially dangerous until you have checked them for safety. Safety is established when all the ingredients and preparations are known to be gluten-free.

Getting the appropriate number of servings from each food group will help ensure adequate nutrition, including vitamins and minerals. Remember that combination foods such as a sandwich or casserole will have servings from more than one food group. The guidelines in this instruction follow the recommendations of "My Plate," the U.S. government guidelines for healthy eating. The numbers of recommended servings listed below are general averages for adults, and amounts may vary depending on activity level and other factors. (Find more details here: https://www.choosemyplate.gov/MyPlate)

At times people newly diagnosed with celiac disease or gluten sensitivity, or those who have been following the GF diet may show signs of nutrient deficiencies including B vitamins, calcium, iron, zinc and other nutrients. Speak with your dietitian or physician about solving deficiency problems. Occasionally vitamin and mineral supplements may be recommended (these often will include calcium, folate, and other B vitamins, and/or iron). Recommended supplementation will vary with each individual. Once the intestine is healed (in the case of celiac disease), and provided there is no other health problem that will cause a deficiency, an adequate, well-balanced diet with a variety of foods should provide all the vitamins and minerals you need.

## 3 to 4 servings/day

Grains supply many of the $B$ vitamins and minerals required daily. Grains can also supply a significant amount of soluble and insoluble fiber.

Not all GF grains have similar nutrient content. Choose whole grains with high nutrient density.

Gluten-free bread products are often higher in calories than wheat breads. Read labels to determine a serving.

## - Make at least half of your grains whole grains.

## BREAD \& GRAINS

Specially prepared breads using only allowed flours: amaranth, arrowroot, bean, buckwheat, chia, corn, flax, millet, nut, and oats (certified GF), potato, quinoa, rice, sorghum, soy, tapioca, and teff are allowable $\ddagger$.

## COOKED GRAINS

Amaranth, buckwheat, corn/ polenta, millet, oats (certified GF), quinoa, rice, sorghum, teff.

## CEREALS

Hot cereals: made from the allowable grains and seeds. Cold cereals: Cereals made from allowed grains and with no malt or malt flavoring.

If safety cannot be established

Those containing wheat (including einkorn, emmer, durum, faro, graham, semolina, spelt, KAMUT® khorasan wheat, bulgur, couscous), rye, or barley.

BEWARE: WHEAT-FREE does not always mean gluten-free

Breads may be purchased ready-to-eat, as mixes to prepare at home, or baked using GF flours.

One serving = $1 / 2 \mathrm{c}$ rice or other cooked GF grain, 1/2 c. pasta, 1 piece of bread.

Those containing wheat (including einkorn, emmer, durum, faro, graham, semolina, spelt, KAMUT® khorasan wheat, bulgur, couscous), rye, or barley.

New products with 'unusual' grains are constantly being introduced. Do not use them before confirming GF status.

## CRACKERS \& SNACK FOODS

Rice wafers; rice crackers; corn and potato chips*; rice cakes*, pure corn tortillas; popcorn, caramel corn*

## POTATO, RICE, PASTA \&

 OTHER STARCHESWhite and sweet potatoes; yams; hominy; rice, wild rice; pasta made from rice, soy, corn or other allowed ingredients.
Some Asian rice* and bean thread noodles*

Those containing wheat (including einkorn, emmer, durum, faro, graham, semolina, spelt, KAMUT® khorasan wheat, bulgur, couscous), rye, or barley.

READ LABELS CAREFULLY.
If the product shows 'brown rice syrup,' contact the manufacturer to check for "barley malt enzymes" used in processing
*Consult label and contact manufacturer to clarify questionable ingredients.

Noodles, spaghetti or macaroni made from grains not allowed. Most packaged* or frozen rice or pasta side dishes*.
*Consult label and contact manufacturer to clarify questionable ingredients.

## $21 / 2-3$ cups per day*

Vegetables are an excellent source of vitamins, minerals and fiber. Fresh vegetables or flash frozen will have the highest nutrient content. Limit the amount of added fats to control caloric intake.

- Make at least half of your plate fruits and vegetables.


## If safety cannot be established

All plain, fresh, frozen, or canned. Some commercially prepared vegetables*

Creamed vegetables*, vegetables canned in sauce*, some canned beans*, commercially prepared vegetables and salads*
*Consult label and contact manufacturer to clarify questionable ingredients.
*2 cups lettuce or raw leafy greens counts as 1 cup.

FRUITS

## Foods Allowed:

## Foods to Avoid:

Notes:

## 1 $1 / 2$ - 2 cups per day*

Fruits are an excellent source of vitamins, minerals, and fiber. Use of raw, fresh fruits increases the fiber in the diet.

- Make at least half of your plate fruits and vegetables.

All fresh, frozen, canned or most dried fruits*. All 100\% fruit juices; some canned pie fillings*.

## If safety cannot be established

Thickened or prepared fruits; some pie fillings*.
*Consult label and contact manufacturer to clarify questionable ingredients.
*1 cup = 1 piece most fruits (apple, banana, orange etc. 1 cup juice, 1/2 cup dried fruit.

## DAIRY

## Notes:

## 3 cups per day

Dairy foods are our primary
source of calcium. If you are dairy intolerant, use of a calcium supplement may be recommended. Dairy foods are also a good protein source and may be substituted for other protein foods in a vegetarian diet.

- Choose skim or low fat products


## MILK

Fresh, dry, evaporated or condensed milk; cream; sour cream*; whipping cream; yogurt.

If safety cannot be established

Malted milk; some commercial chocolate drinks*; some nondairy creamers.*
$1 \frac{1}{2}$ ounces hard cheese $=1$ cup dairy

1 cup cottage cheese $=1 / 2$ cup dairy
*Consult label and contact manufacturer to clarify questionable ingredients.

## CHEESE

All aged cheeses, such as cheddar, Swiss, Edam, and Parmesan. Cottage cheese, cream cheese, pasteurized processed cheese*. Veined cheeses, such as blue cheese are also allowed*.

Any cheese product containing products to be avoided.
*Consult label and contact manufacturer to clarify questionable ingredients.

## 5-6 $1 / 2$ ounce equivalents*

Protein is an essential nutrient for growth, tissue repair and fighting infections. Complete proteins are found in all meats from animals, poultry and fish. Choose lean cuts and cooking methods to limit your fat intake.

In addition, the following are good plant-based protein sources: beans, peas, lentils, nuts and seeds.

## MEAT, FISH, POULTRY

All fresh meats, seafood, poultry. Fish canned in water, oil, brine, or vegetable broth; some processed meat products, such as hot dogs, lunch meats, or cured meats*.

If safety cannot be established

| Prepared or processed meats | *Consult label and contact |
| :--- | :--- |
| containing grains to avoid, | manufacturer to clarify |
| such as: some sausages*, | questionable ingredients. | sot as: hot dogs*; bologna*; and luncheon meats*. Chili con carne*. Bread-containing products, such as Swiss steak, meat loaf, meatballs, and croquettes. Tuna canned with hydrolyzed protein*. Turkey with hydrolyzed vegetable protein (HVP) injected as part of the basting solution. "Imitation Crab or other meat analogs" containing wheat starch or other unacceptable filler. Quick Individually Frozen (QIF) seafood $\ddagger$.

*Consult label and contact questionable ingredients
$\ddagger$ May be dusted with flour or other starches in processing.
*An ounce equivalent is: 1 oz cooked meat poultry or fish, 1 egg, $1 / 2$ oz nuts or seeds; 1 TB nut butter, 1/4 cup cooked beans, lentils or peas.

## EGGS

Plain or in cooking.

Eggs in sauces made from wheat, rye, oats, or barley. Usually wheat flour is used in white sauce.

Be aware that some restaurants may add a wheatbased filler in scrambled eggs and omelets.
FATS \& SWEATS Foods Allowed Notes

## If safety cannot be established

## Use sparingly.

Although fats and sweets are an important part of our diet, in that they provide a desirable taste and texture to meals and snacks, they also often provide unnecessary calories and fat. Use small amounts. When you are able to, use reduced-calorie alternatives or substitutions for these foods.

## DESSERTS

Cakes, cookies, quick breads, pastries, puddings made with allowed ingredients. Cornstarch, tapioca and rice puddings. Puddings*. Ice cream w/few, simple ingredients. Sorbet*, frozen yogurt*, sherbet*.

Commercial cakes, cookies, pies, etc., made with grains and flours that are not allowed. Products containing brown rice syrup made w/ barley malt enzyme*.
*Consult label and contact manufacturer to clarify questionable ingredients.

## FATS

Butter, margarine, vegetable oil, olive oil, hydrogenated butter, vegetable oil, shortening, nuts, peanuts, some salad dressings*, mayonnaise*.

Some commercial salad dressings with thickeners*. Some dry roasted nuts may contain wheat.

## Notes

*Consult label and contact manufacturer to clarify questionable ingredients.

## SWEETS

Jelly, jam, honey, brown \& white sugar, molasses, most syrups*, some candy*, chocolate, pure cocoa, coconut, marshmallows*.

Some commercial candies.
Watch for malt/malt flavoring. Chocolate-coated nuts which may be rolled in wheat flour*. Brown rice syrup made w/ barley malt enzyme*.
*Consult label and contact manufacturer to clarify questionable ingredients. Wheat must be labeled on all products with oversight by the FDA.

## If safety cannot be established

Liquids are important in our body's regulation and balance. Most people need 6-8 glasses of liquids daily.

Spices and herbs add flavor and variety to any diet. There is no need for the gluten-free diet to be bland!

## BEVERAGES

Instant, ground coffee, and flavored coffee beans; tea, and instant tea; carbonated beverages*; pure cocoa powder; wine and distilled spirits, such as rums, vodka, whiskey, etc. Most hard ciders.

## MISC

Spices (salt, pepper, cloves, ginger, nutmeg, cinnamon, allspice, etc.).

Herbs (oregano, rosemary, etc.).

Food coloring.
Flavoring extracts and imitation and natural flavorings.

Baking and Nutritional Yeast, baking soda, baking powder, cream of tartar, and dry mustard, vinegars (except malt vinegar), and olives. Monosodium glutamate (MSG).

Grain beverages (such as Ovaltine®), malted milk; ales; beer; some hard ciders; Instant Flavored coffees*. Some herbal teas w/barley or barley malt added*.
*Consult label and contact manufacturer to clarify questionable ingredients.

Some curry powders*. Some dry seasoning mixes or blends*. Some gravy extracts*, meat sauces*, and soy sauces*. Some chewing gum*.

Malt vinegar
Brewer's Yeast
Communion wafers/bread.
Note: In Catholic communion, host crumbs are often added to the wine before it is served. A workable solution is to arrange to use a goblet of your own. GF communion wafers are available.
"Spices" on labels refer to pure spices and are GF. Seasonings or blends could include blended spices with a flow or anti-caking agent which needs to be cleared as safe to use. "Flavorings" are only problematic in meat products; however labeling law requires that if wheat is used, it must be declared on meat products. Natural and artificial flavorings regulated under FDA are required to identify wheat.
Vinegar (with the exception of malt vinegar) \& distilled spirits do not contain protein, therefore, are gluten-free. All proteins, including gluten, are too large to pass through the distillation process and are not found in end products of distillation. Therefore distilled alcoholic spirits are safe. Use alcoholic beverages in moderation. Malt vinegar may have a malt flavoring added after processing. Malt vinegar should be avoided.

Adipic Acid
Annatto
Ascorbic Acid
BHA
BHT
Beta Carotene
Biotin
Calcium Chloride
Calcium Pantothenate
Calcium Phosphate
Carboxymethylcellulose
Carrageenan
Citric Acid
Corn Sweetener
Corn Syrup Solids
Demineralized Whey
Dextrimaltose

Dextrose
Dictyl Sodium Sulfosuccinate
Folic Acid - Folacin
Fructose
Fumaric Acid
Gums: Acacia, Arabic, Carob Bean, Cellulose, Guar, Locust Bean,
Tragacanth, and Xanthan
Invert Sugar
Lactic Acid
Lactose
Lecithin
Magnesium Hydroxide
Malic Acid

Mannitol
Microcrystalline Cellulose
Niacin - Niacinamide
Polyglycerol
Polysorbate 60: 80
Potassium Citrate
Potassium Iodide
Propylene Glycol Monostearate Propyl Gallate
Pyridoxine Hydrochloride
Sodium Ascorbate
Sodium Acid Pyrophosphate
Sodium Benzoate
Sodium Caseinate

Sodium Citrate
Sodium Hexametaphosphate
Sodium Nitrate
Sodium Silico Aluminate
Sorbitol
Sucrose
Sulfosuccinate
Tartaric Acid
Thiamine Hydrochloride
Tricalcium Phosphate
Vanillin
Vitamins \& Minerals
Vitamin A (Palmitate)

These must be cleared with the manufacturer before they are eaten. A sample letter requesting information on the questionable ingredients and packaging, and processing of these ingredients is on the last page of this diet instruction.

## DEXTRIN

Allowed when sourced from non-wheat carbohydrates, e.g. rice or potatoes.

## If safety cannot be established

When derived from wheat, in which case "wheat" will be indicated on label.

Rice flour, corn flour, cornmeal, potato flour amaranth $\ddagger$, quinoa $\ddagger$, teff $\ddagger$, millet $\ddagger$, buckwheat $\ddagger$, and soy flour or any other allowed grains.

Wheat, rye, barley, spelt and other flours to be avoided.
$\ddagger$ Be sure the source is pure.

In the US, this must contain 2 or more of the following: beans, cabbage, carrots, celery, garlic, onions, parsley, peas, potatoes, green bell pepper, red bell pepper, spinach, or tomatoes. It cannot contain any other ingredients. IT IS GLUTEN-FREE.

| Rarely derived from corn or | If label states "malt" or "malt |
| :--- | :--- |
| rice; if so, safe to consume. | extract/flavoring", must be |
| avoided. |  |

From rice only. Made with barley malt enzyme.

| In the US, it must be CORN | If made with sources other than |
| :--- | :--- |
| corn, it must be labeled as to |  |
| STARCH (in food products | its source (i.e.: wheat starch) |
| only). |  |

In medicines 'starch' is not necessarily made from corn.

Arrowroot, corn, potato, tapioca, waxy maize, or maize.

From source ingredients other than those allowed. If it is made from wheat it must be labeled as such.

Carob bean, locust bean, cellulose, guar gum, Arabic gum, acacia gum, tragacanth, or Xanthan gum.

Those which DO NOT contain wheat (SOY ONLY).

## Oat gum

Those brewed from wheat and soy.

GF tamari is a good alternative to soy sauce
\(\left.$$
\begin{array}{lll}\text { Always gluten-free. When used } & \text { Those using wheat-based } & \text { *Consult label and contact } \\
\text { in wet products, such as ice } & \begin{array}{l}\text { carriers in dry products. } \\
\text { cream, there is no concern. }\end{array}
$$ \& The problem is the carrier <br>

maesturer to clarify\end{array}\right]\)| questionable ingredients. |  |
| :--- | :--- |
| In dry products, such as | ingredients, not the mono- and |

## MEDICATIONS

Regulations for ingredients in medications are different than regulations for foods. Inactive ingredients are potentially problematic ingredients in medications. Only medications that come in direct contact with any part of the intestinal tract must be gluten-free. IV Drugs, medicated patches, liquids, topical agents, and inhalants generally do not contain ingredients with gluten.

Ask your doctor to add the following statement on all prescription drug orders "OR GLUTEN-FREE EQUIVALENT"

## Gluten-Free Pharmaceutical Excipients:

| Alacia | Croscarmellose Sodium | Magnesium Stearate | Simethicone |
| :--- | :--- | :--- | :--- |
| Alginic Acid | Dextrose | Matitol | Sodium Benzoate |
| Alpha Tocopheral | Docusate Sodium | Maltose | Sodium Lauryl Sulfate |
| Ascorbic Acid | Fructose | Mannitol | Sorbitol |
| Benzyl Alcohol | Glucose | Microcrystalline Cellulose | Stearic Acid |
| Calcium Carbonate | Hydrogenated Vegetable Oil | Polydextrose | Sucrose |
| Carboxymethylcellulose | Hydroxypropyl Cellulose | Povidone | Vanillin |
| Citric Acid | Lactose | Propylene Glycol | Xanthan Gum |
| Corn Starch | Magnesium Carbonate | Silicon Dioxide | Zinc Stearate |


| Medication Ingredient | When Allowed | When to Avoid <br> If safety cannot be established | Notes |
| :---: | :---: | :---: | :---: |
| STARCH: | Made from corn, rice, tapioca or potato. | Made from wheat. |  |
| PREGELATINIZED STARCH: | From corn or tapioca starch. | Made from wheat |  |
| DEXTRIMALTOSE: |  | If sourced from barley |  |
| MALT, MALT SYRUP: |  | Always avoid | Derived from barley \& used in production of other ingredients. |
| DEXTRIN, DEXTRATES, CYCLODEXTRINS: | From corn or potato starch. | Made from wheat | Derived from incomplete hydrolysis or starch. |


| MALTODEXTRIN: | Derived from caramel color - <br> in the USA is generally corn <br> based. |
| :--- | :--- |

SODIUM STARCH GLYCOLATE (CARBOXYETHYL STARCH):

From potato, corn, rice or tapioca.

Made from wheat.

Distillation separates out pure ethanol from proteins in original starting matter. Distilled spirits are gluten-free.

## Resources for Gluten-Free Drug Information:

- www.glutenfreedrugs.com (Pharmacist controlled site)
- dailymed.nlm.nih.gov/dailymed/
- pillbox.nlm.nih.gov/pillimage/search.php

This document may be reproduced for educational purposes only.
Other helpful information is available at www.GLUTEN.org.
Advances in celiac disease and other gluten-related disorders are fast-paced. If this document is more than 2 years old, please visit our website for updated documents.

This information should not be used to diagnose or treat gluten-related disorders or other medical conditions. For questions about these conditions consult your healthcare team when considering this information.

Please consider your local GIG support group as another resource.
Gluten Intolerance Group (GIG)
31214 - 124th Ave. S.E.
Auburn, WA 98092-3667

Phone: 253-833-6655
Fax: 253-833-6675
www.GLUTEN.org
customerservice@GLUTEN.org
The Mission of the Gluten Intolerance Group is to empower the gluten-free community through consumer support, advocacy, and education.

To make a donation or become a volunteer to GIG, visit our website or call the office at 253-833-6655.

